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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,531	03/23/2004	Thomas L. Chenevert	UM-08780	3429
72960	7590	09/30/2008		
Casimir Jones, S.C. 440 Science Drive Suite 203 Madison, WI 53711			EXAMINER MEHTA, PARIKHA SOLANKI	
			ART UNIT	PAPER NUMBER
			3737	
			MAIL DATE	DELIVERY MODE
			09/30/2008 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/807,531

**Applicant(s)**

CHENEVERT ET AL.

**Examiner**

PARIKHA S. MEHTA

**Art Unit**

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 September 2008 has been entered.

### *Claim Objections*

2. Claims 1-20 are objected to because of the following informalities:
- Claims 1 and 10 recite "echos" where "echoes" should appear.
- Claims 2-7, 9, and 11-17 fail to further limit the structure of the claimed invention.
- Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 10-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 is directed towards a non-statutory process placed on a computer readable medium, wherein the process is subject to the statutory requirements set forth for method claims. The presently claimed process constitutes a judicial exception which may only be deemed statutory only if the claimed method(s) produce a useful, tangible and concrete result and are sufficiently tied to another statutory class. The instant process is not sufficiently tied to an apparatus or other statutory class, and the recitation requiring the process to be embodied on a computer readable medium does not cure this deficiency. For further reference regarding the definition of statutory subject matter as set forth by the USPTO, Examiner directs Applicant's attention to the USPTO published Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility published on 26 October 2005.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-8 and 10-17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Levenson et al (Fatty Infiltration of the Liver: Quantification with Phase-Contrast MR Imaging at 1.5 T vs Biopsy. *American Journal of Roentgenology*. 156:307-312. February 1991), hereinafter Levenson (1991), previously made of record by Applicant.

Levenson (1991) discloses a computerized method and system of determining the percentage of fat within a sample via MR imaging, including an MRI device (p. 308 col. 1, Subjects and Methods), and software configured to receive data from the MRI device, wherein the data comprise at least one pair of consecutive in-phase and out-phase echoes of a sample collected in magnitude format, wherein the software processes such in-phase and out-phase echoes to calculate and display a percent (fraction) of fat content within the sample (Abstract, p. 309 col. 1, Fig. 2). Levenson (1991) discloses the reference system for use with liver sample data (also constituting a sample from a human abdomen as presently claimed) (Abstract), but it would also be capable of processing abnormal tissue/lesion data, data obtained with a low flip angle of 20 degrees, and data obtained with a high flip angle of 70 degrees. The system of Levenson (1991) is configured to correct for T2\* NMR relaxation effects (Abstract).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 9 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Levenson (1991). Levenson (1991) teaches all features of the present invention as previously discussed for claims 8 and 17, but does not expressly teach that the  $T_2^*$  NMR relaxation effect value is obtained by application of any of those equations recited in claims 9 and 18. Applicant has not disclosed that any of these equations solves a particular problem or presents any kind of patentable advantage over the equations used by the prior art. As such, it would have been nothing more than an obvious matter of design choice to one of ordinary skill in the art to have modified Levenson (1991) to instead calculate the  $T_2^*$  NMR relaxation effect by any or all of the equations listed in claims 9 and 18, as a skilled artisan would expect the results to be equally accurate based on what is presented in the instant disclosure.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

11. The previous objection to the oath/declaration is hereby withdrawn.

12. Applicant's amendments of 11 Sept 2008 are sufficient to overcome the previous rejections of claims 1-20 under 35 U.S.C. 101 for being directed to non-statutory subject matter. Accordingly, those rejections are hereby vacated.

### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARIKHA S. MEHTA whose telephone number is (571)272-3248. The examiner can normally be reached on M-F, 8 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571.272.4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ruth S. Smith/

Primary Examiner, Art Unit 3737

/Parikha S Mehta/

Examiner, Art Unit 3737